



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,616	01/23/2004	Benjamin Reichman	OBC-131	7272
24963 7590 05/15/2008 ENERGY CONVERSION DEVICES, INC. 2956 WATERVIEW DRIVE ROCHESTER HILLS, MI 48309				
EXAMINER				
LANGEL, WAYNE A				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
05/15/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/763,616

Applicant(s)

REICHMAN ET AL.

Examiner

Wayne Langel

Art Unit

1793

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20, 22-25, 27-40, 44 and 45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20, 22-25, 27-40, 44 and 45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/808)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20, 22-25, 27-40, 41 and 42 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either Cortright et al '757 or Cortright et al '457, for the reasons given in the last Office Action. Applicants' argument, that Cortright et al reacts very specific organic materials with water in the optional presence of a hydroxide to form primarily hydrogen and carbon dioxide, whereas applicants' process reacts any organic compound containing 4+ carbon atoms with a base material, in the optional presence of water, to form primarily hydrogen, carbonate and/or bicarbonate material, is not convincing, since applicants' claims do not exclude the very specific organic materials disclosed by Cortright et al and water as reactants. Applicants' argument, that Cortright et al do not react a base with the organic material as required by the present claims, is not convincing. Both Cortright et al references disclose that the pH may be as high as 10.2. (See col. 3, lines 39-41 of Cortright et al '457 and col. 13, lines 40-42 of Cortright et al '757.) Applicants have not

explained why there would not be a reaction between the organic material and base in the process of Cortright et al when employing a pH of 10.2, especially in light of the paragraph bridging columns 6 and 7 of US 6,607,707, which indicates that carbonate and bicarbonate would be formed at a pH of 10.3. (See Equations (2) and (3) in column 6 of US 6,607,707.) up to 0.006 M, the production rate and selectivity of hydrogen increase, but when the concentration of KOH is further increased to 0.012 M, the production rate and selectivity do not further increase, is not convincing. Cortright et al '757 discloses at col. 21, lines 49-52 that as the KOH concentration is increased from 0 M to 0.006 M, the hydrogen selectivity increased from 57% to 77%, but it is not seen where either Cortright et al reference discloses that when the concentration of KOH is further increased to 0.012 M, the production rate and selectivity do not further increase. In any event, such a disclosure by Cortright et al would not constitute evidence that a carbonate and/or bicarbonate would not be formed at a pH of 10.2 in the processes of Cortright et al. Applicants' argument, that according to Example 12 of the Cortright et al references the amount of KOH is clearly insignificant in comparison to the amount of sorbitol and the KOH does not contribute to production of hydrogen by the reaction of a base with an organic substance, is not convincing, since the teachings of the Cortright et al references are not limited to Example 12. Applicants' argument, that new claim 44 is drawn to a process for producing hydrogen gas by reacting an organic substance with a base to form the hydrogen gas without any substantial production of carbon dioxide, is not convincing, since there is no reason to believe that carbon dioxide would be produced in the process of Cortright et al when employing a pH of 10.2, especially in light of the paragraph bridging columns 6 and 7 of US 6,607,707 and Equations (2) and (3) in column 6 thereof, which do not indicate the production of

carbon dioxide when operating at a pH of 10.2. Applicants' argument, that every one of Cortright et al 's examples and equations indicates that the process of Cortright et al makes very large quantities of carbon dioxide, is not convincing, since Equations (6), (7) and (8) in column 8 of Cortright et al '757, directed to the steam reforming of ethanediol, do not indicate the production of carbon dioxide. In any event, the teachings of Cortright et al are not limited to the equations and examples.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Langel whose telephone number is 571-272-1353. The examiner can normally be reached on Monday through Friday, 8 am - 3:30 pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wayne Langel/
Primary Examiner, Art Unit 1793

Application Number**Application/Control No.**

10/763,616

**Applicant(s)/Patent under
Reexamination**

REICHMAN ET AL.

Examiner

Wayne Langel

Art Unit

1793